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L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Organic electroluminescent device

Author/Inventor

Funahashi, Masakazu; Fukuoka, Kenichi; Hosokawa, Chishio

Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

PCT Int. Appl., 52 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Concept or Classification

73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Patent Information

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2004047500	A1	20040603	WO 2003-JP14426	20031113	

Patent Number (1)

WO 2004047500

Kind Code (1)

ΑÌ

Patent Publication Date (1)

20040603

Application Number (1)

WO 2003-JP14426

Application Date (1)

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20031113

Priority Patent Number (1)

JP 2002-333865

Priority Kind Code (1)

Priority Patent Publication Date (1)

20021118

Abstract

The invention relates to an organic electroluminescent device comprising a light emitting layer sandwiched between a pair of electrodes, and characterized in that the light emitting layer contains a light emitting layer material, a 1st dopant and a 2nd dopant that satisfy the following relations, i.e. EV0>EV1 and EV0>EV2; EC0≥EC2; Eg0>Eg1, Eg2, where EV0, EV1, and EV2 represent the valence band energy levels of the light emitting layer, the 1st dopant and the 2nd dopant, resp. and likewise EC and Eg indicate the conduction band energy level and the band gap energy, resp.

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L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN Author/Inventor

Acenaphtho[1,2-k]fluoranthene-3,10-diamine, N,N,N',N',7,14-hexaphenyl- (9CI)

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L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

=> d 14

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

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L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

=> s 209980-53-0/rn L6 1 209980-53-0/RN

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L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

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L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

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L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

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L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

L10 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

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L16 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
```

Title

White organic electroluminescent device

Author/Inventor

Fukuoka, Kenichi; Hosokawa, Chishio

Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 16 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003272857	Α	20030926	JP 2002-76619	20020319

Patent Number (1) JP 2003272857 Kind Code (1) Α

Patent Publication Date (1) 20030926

Application Number (1) JP 2002-76619

Application Date (1) 20020319

Priority Patent Number (1)

JP 2002-76619

Priority Patent Publication Date (1)

20020319

Abstract

The invention refers to a white electroluminescent device comprising a blue luminescent layer and a yellow-red luminescent layer, wherein the blue luminescent layer is placed closer to the anode in order to counteract the tendency of the device toward the red color so that the yellow-red luminescent layer may be made thicker without affecting the color of the light.

L16 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Organic electroluminescence device with gallium quinolinato complex and styryl arylene host

Author/Inventor

Hosokawa, Chishio; Funahashi, Masakazu; Sakai, Toshio; Arakane, Takashi; Yamamoto, Hiroshi

Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

PCT Int. Appl., 73 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102118	<u>A1</u>	<u>20021219</u>	WO 2002-JP4427	<u>20020507</u>

Patent Number (1)

WO 2002102118

Kind Code (1)

A1

Patent Publication Date (1)

20021219

Application Number (1)

WO 2002-JP4427

Application Date (1)

20020507

Priority Patent Number (1)

JP 2001-170960

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

20010606

Abstract

The invention refers to an organic electroluminescence device comprising at least one organic thin-film layer with a laminate containing a metal complex with energy gap > 2.8 eV, and a host material layer. The electroluminescence device exhibits a high luminance and has high emission efficiency and a long life.

L16 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Novel styryl compounds and organic electroluminescent devices

Author/Inventor

Funahashi, Masakazu; Arai, Hiromasa; Hosokawa, Chishio

Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

PCT Int. Appl., 37 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2002020459	A1	20020314	WO 2001-JP7295	20010827	

Patent Number (1)

WO 2002020459

Kind Code (1)

Α1

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Patent Publication Date (1)
20020314

Application Number (1)
WO 2001-JP7295

Application Date (1)
20010827

Priority Patent Number (1)
JP 2000-265544

Priority Kind Code (1)
A

Priority Patent Publication Date (1)
20000901
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Abstract

Novel styryl compds. I or II; and an organic electroluminescent device with an organic compound film comprising at least a light emitting layer, wherein a novel styryl compound described above is contained in ≥1 layer constituting the film: I and II (wherein R1 to R10 are each independently H, alkyl, alkoxy, aryl, aryloxy, a fused polycyclic group, a heterocyclic group, amino, alkylamino, arylamino, cyano, nitro, hydroxyl, or halo, or alternatively any adjacent 2 of R1 to R10 may be united to form a saturated or unsatd. C ring; and A, B, C, D, A', B', C' and D' are each independently a substituted or unsubstituted alkyl or aryl group having a specific structure). The invention provides organic electroluminescent devices exhibiting high heat resistance, high light emitting efficiency, long lifetime and high blue color purity, and novel styryl compds. capable of realizing such electroluminescent devices.

L16 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

Title

Organic electroluminescent devices

Author/Inventor

Hosokawa, Chishio; Funehashi, Masakazu; Kawamura, Hisayuki; Arai, Hiromasa; Koga, Hidetoshi; Ikeda, Hidetsugu

Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

PCT Int. Appl., 167 pp. CODEN: PIXXD2

Document Type Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000039247	A1	20000706	WO 1999-JP7390	19991228

Patent Number (1)

WO 2000039247

Kind Code (1)

Α1

Patent Publication Date (1)

20000706

Application Number (1)

WO 1999-JP7390

Application Date (1)

19991228

Priority Patent Number (1)

JP 1998-373921

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

19981228

Abstract

The devices having a high luminescent efficiency, a long life and a high heat resistance comprise I (A = (substituted) C22-60 arylene; X1-4 = (substituted) C6-30 arylene; Y1-4 = II; a-d = 0-2; R1-4 = H, (substituted) alkyl, (substituted) aryl, cyano; R3 may be bonded to R4 to form a triple bond; Z = (substituted) aryl; n = 0, 1).

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